# **ENGINEERING MANAGEMENT SUPPORT INC.**

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October 28, 2013 VIA: Electronic Mail

U.S. Environmental Protection Agency Region VII SUPR/MOKS 11201 Renner Boulevard Lenexa, KS 66219

**ATTENTION:** Mr. Dan Gravatt

SUBJECT: Revised Work Plan – Alternative Area 2 Excavation Depths and Volumes, West Lake Landfill Operable Unit 1, Bridgeton, Missouri

Dear Mr. Gravatt,

On behalf of Cotter Corporation (N.S.L.), Bridgeton Landfill, LLC., Rock Road Industries, Inc., and the United Sates Department of Energy (the "Respondents"), Engineering Management Support Inc. (EMSI) submits the attached revised Work Plan – Alternative Area 2 Excavation Depths and Volumes. The attached work plan has been revised to address comments provided by EPA's National Remedy Review Board (NRRB) and by the Missouri Department of Natural Resources regarding the specific sections of the Supplemental Feasibility Study (SFS) report that may need to be revised to incorporate the results of the evaluations of the alternative depths and volume of radiologically-impacted material (RIM) in Area 2.

With regard to the comment that "...the 500,000 cubic yards amount corresponding to the 'complete rad removal' option likely overstates the volume and cost associated with a reasonable excavation remedy, especially where it appears feasible to separate out uncontaminated overburden material (e.g., construction debris)," we do not understand the basis or nature of the NRRB comment. The volume of RIM identified in Areas 1 and 2 for possible excavation under the "complete rad removal" is actually 335,500 bank cubic yards (bcy) (see Section 2.2.4 of the December 2011 SFS report). The SFS evaluations also identified 359,000 bcy of non-RIM overburden material (including both non-RIM solid waste and inert fill material) located over the RIM in Areas 1 and 2 that would need to be removed and segregated as part of any attempt to remove the underlying RIM.

The methods used to develop these volume estimates for both RIM and overburden were discussed with EPA during a webinar meeting prior to preparation of the SFS, and were subject to EPA review and approval during development of the draft and final SFS report. We do not understand the basis for the value of 500,000 cubic yards cited by the NRRB

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or the apparent misunderstanding of the NRRB regarding the fact the prior SFS evaluations included separation of non-RIM overburden material from the volumes of RIM to be excavated and disposed elsewhere.

With respect to the comments provided by the NRRB regarding consistency of the evaluation of alternative Area 2 RIM depths and volume with comments and recommendations provided by the NRRB, we look to EPA Region VII to address these comments with the NRRB. The Work Plan previously provided to EPA and the attached revised Work Plan address EPA's request (as stated in EPA's October 12, 2012 letter to the Respondents) that the volume of RIM considered for possible excavation under the "complete rad removal" alternatives be revised to exclude deeper intervals in soil borings WL-210 and WL-235 in Area 2. With respect to consideration of other alternative volumes of RIM for examination of possible excavation, this activity is addressed in the separate Work Plan – Partial Excavation Alternative.

If you have any questions or desire additional information related to this work plan or any other aspect of the project, please do not hesitate to contact me.

Sincerely,

ENGINEERING MANAGEMENT SUPPORT, Inc.

Paul V. Rosasco, P.E.

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# **Work Plan**

# **Additional Present Value Cost Estimates**

#### Introduction

The present value (also referred to as present worth) cost estimates presented in the Supplemental Feasibility Study [SFS] (EMSI, 2011) were based on the Office of Management and Budget (OMB) real discount rate of 2.3% (as of 12-2011). EPA's October 12, 2012 letter indicated that the National Remedy Review Board has recommended that present value calculations be performed using a 7% discount rate.

For reference, EPA guidance directs evaluation of alternatives using a 7% discount rate (NCP, OSWER Directives 9355.3-20 and 9355.0-75) for non-federally financed projects. EPA guidance allows for use of lower or higher discount rate than 7% for the FS present value analysis. EPA guidance also requires evaluation of alternatives for federally funded projects to be based on real discount rates found in OMB Circular A-94 (2.3% for 2011). Pursuant to EPA's request, the alternatives will be evaluated using a 7% discount rate. Given that the Department of Energy is a Respondent for OU-1 and therefore federal funds will be use to pay for a portion of any remedial actions that may be implemented at the site and because EPA previously requested that the cost of the alternatives be evaluated using a fiscally-constrained approach in the event that the remedial actions are implemented by EPA as a fund lead site (see EPA January 24, 2011 letter to the Respondents), the cost of the alternatives will also be evaluated using the OMB rate.

### Approach

Pursuant to EPA's request, present value cost estimate calculations will be prepared based on both the current OMB rate and a 7% discount rate. Accordingly, the cost estimates presented in the SFS will be updated to include both discount rates as will any additional estimates to be developed in conjunction with additional evaluations requested by EPA for a Supplemental SFS. The results of these additional estimates will be compared to previous estimates to determine the sensitivity of the cost estimates to the discount rate.

A narrative will also be prepared to explain why both rates are being used for the SFS. The narrative will present a discussion addressing why use of the OMB rate is more appropriate for the SFS based on the following factors:

- 1. Remedial action for West Lake Landfill OU-1 will be federally-funded (DOE) in part;
- 2. Fiscally-constrained approaches were identified to address possible Federal (Superfund) funding of the remedial actions; and

3. The likelihood of being able to obtain a 7% pre-tax return over the anticipated near-term period of remedy construction is remote.

#### **Deliverables**

Interim Deliverable – A brief memorandum will be prepared to present the present value cost estimates for the ROD-selected remedy and the two "complete rad removal" alternatives presented in the SFS based on the OMB rate included in the SFS and a 7% discount rate. Development of cost estimates to be performed in conjunction with the other additional evaluations requested by EPA will also include both the OMB rate and a 7% discount rate.

SFS revisions – the following revisions to the SFS report are anticipated as part of this additional evaluation:

- 1. Section 6.1.7.3 Revise text to address use of both 7% discount rate and OMB rate
- 2. Sections 6.2.1.7, 6.2.2.7, and 6.2.3.7 Revise the discussion of the present value costs of the alternatives to include both present values based on 7% and OMB discount rates
- 3. Section 7.2.5 Revise discussion of present values to include values based on both 7% and OMB discount rates
- 4. Appendix K Include present value calculations based on both 7% and OMB discount rates

Please note that at the time the Supplemental SFS is prepared, the present value cost estimates will be updated to reflect the then-current OMB rate, which may differ from the rate used in the SFS or in preparation of the various interim deliverables documenting the results of the additional evaluations requested by EPA.

#### Clarifications by EPA

No additional clarification is being requested from EPA at this time.

### Schedule

Preparation of additional present value cost estimates for the ROD-selected remedy and the two "complete rad removal" alternatives and preparation of a brief summary memorandum of the results of these additional evaluations will take approximately three weeks. Preparation of present value costs associated with the other additional evaluations requested by EPA will be completed in accordance with the schedules for completion of these other evaluations.

Preparation of present value costs using both discount rates for the other evaluations requested by EPA will be performed once EPA comments on the interim deliverables, and in conjunction with preparation of a Supplemental SFS.

#### References

Engineering Management Support, Inc. (EMSI), 2011, Supplemental Feasibility Study, Radiologically-Impacted Material Excavation Alternative Analysis, West Lake Landfill Operable Unit-1, December 16.

United States Environmental Protection Agency (EPA), 2000, A Guide to Developing and Documenting Cost Estimates During the Feasibility Study, EPA 540-R-00-002/OSWER Directive 9355.0-75, July.

EPA, 1993, Memorandum: Revisions to OMB Circular A-94 on Guidelines and Discount Rates for Benefit-Cost Analysis, OSWER Directive No. 9355.3-20, June 25.